

Application/Control Number: 10/043,312

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1. A method for revising wiring of a circuit to prevent electro-migration, comprising the steps of:
  - calculating a current density at a branch of a net;
  - determining whether or not said current density exceeds a limit value;
  - revising a wiring which affects said current density in order to reduce said current density if said current density exceeds said limit value.
2. The method as set forth in claim 1, wherein said limit value is determined to prevent said electro-migration.
3. The method as set forth in claim 1, wherein said limit value depends on drive ability of a device which drives said net.
4. The method as set forth in claim 1, wherein said limit value depends on resistance of an interval of said net, said interval ending at said branch.
5. The method as set forth in claim 1, wherein the revising said wiring is reducing resistance of an interval of said net, said interval ending at said branch.
6. The method as set forth in claim 5, wherein the reducing the resistance of said interval is widening said interval.

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7. The method as set forth in claim 1, further comprising a step of tracing said net to obtain said branch.
8. An apparatus for revising wiring of a circuit to prevent electro-migration, comprising:
  - means for calculating a current density at a branch of a net;
  - means for determining whether or not said current density exceeds a limit value;
  - means for revising a wiring which affects said current density in order to reduce said current density if said current density exceeds said limit value.
9. The apparatus as set forth in claim 8, wherein said limit value is determined to prevent said electro-migration.
10. The apparatus as set forth in claim 8, wherein said limit value depends on drive ability of a device which drives said net.
11. The apparatus as set forth in claim 8, wherein said limit value depends on resistance of an interval of said net, said interval ending at said branch.
12. The apparatus as set forth in claim 8, wherein the revising said

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wiring is reducing resistance of an interval of said net, said interval ending at said branch.

13. The apparatus as set forth in claim 12, wherein the reducing the resistance of said interval is widening said interval.

14. The apparatus as set forth in claim 8, further comprising means for tracing said net to obtain said branch.

15. A computer program product embodied on a computer-readable medium and comprising codes that, when executed, causes a computer to perform the steps of:

calculating a current density at a branch of a net;

determining whether or not said current density exceeds a limit value;

revising a wiring which affects said current density in order to reduce said current density if said current density exceeds said limit value.

16. The computer program product as set forth in claim 15, wherein said limit value is determined to prevent said electro-migration.

17. The computer program product as set forth in claim 15, wherein said limit value depends on drive ability of a device which drives said net.

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18. The computer program product as set forth in claim 15, wherein said limit value depends on resistance of an interval of said net, said interval ending at said branch.

19. The computer program product as set forth in claim 15, wherein the revising said wiring is reducing resistance of an interval of said net, said interval ending at said branch.

20. The computer program product as set forth in claim 19, wherein the reducing the resistance of said interval is widening said interval.

21. (Amended) The computer program product as set forth in claim 15, wherein said codes further cause the computer to perform a step of tracing said net to obtain said branch.